

AMENDMENT

Please amend the above-captioned application as follows:

In The Specification:

Please insert the following paragraph on page 1, after the title:

CROSS-REFERENCES TO RELATED APPLICATIONS

B²
The present application, under 35 USC §119, claims the benefit of foreign priority applications, Japanese patent application serial number 355956/1998, filed December 15, 1998 and Japanese patent application serial number 328352/1999, filed November 18, 1999. These applications are explicitly incorporated herein by reference in their entirety and for all purposes.

Replace Figure 8 as filed with the attached substitute, Figure 8.

In The Claims:

Please cancel claims 1 to 6, without prejudice.

Please add the following new claims:

Sub c1
B²
~~8.~~ (new) A method for detecting the degree hybridization between a probe and a sample nucleic acid, the method comprising

(a) providing a substrate on which each of a plurality of types of probes are immobilized at a given position;

(b) providing a sample comprising a nucleic acid;

(c) contacting the sample with the probe and detecting the amount of the probe and the amount of the sample nucleic acid hybridized to the probe, thereby detecting the degree hybridization between the probe and the sample nucleic acid.

~~9.~~ (new) A method for detecting the degree hybridization between a nucleic acid probe and a sample nucleic acid, the method comprising

(a) providing a substrate on which each of a plurality of types of nucleic acid probes are immobilized at a given position;

(b) providing a sample comprising a nucleic acid;

(c) contacting the sample with the nucleic acid probe and detecting the amount of the probe and the amount of the sample nucleic acid hybridized to the probe; and

(d) producing a value representing the degree hybridization between a nucleic acid probe and a sample nucleic acid by normalizing the difference between the amount of the probe and the amount of the sample nucleic acid hybridized to the probe with the amount of the probe.

10. (new) The method of claim 8 or claim 9, wherein the amount of the probe is detected prior to the hybridization step.

11. (new) The method of claim 8 or claim 9, wherein the amount of the sample nucleic acid hybridized to the probe is detected after the completion of the hybridization.

12. (new) The method of claim 8 or claim 9, wherein both the amount of the probe and the amount of the sample hybridized to the probe are detected after the completion of the hybridization.

13. (new) The method of claim 8 or claim 9, wherein the sample nucleic acid and the probe are labeled with different labeling materials.

14. (new) The method of claim 8 or claim 9, wherein the value produced by normalizing the difference between the amount of the probe and the amount of the sample nucleic acid hybridized to the probe with the amount of the probe is indicated on a display.

15. (new) The method of claim 8 or claim 9, wherein the substrate on which each of a plurality of types of probes are immobilized at a given position comprises a biochip.

B² (cont'd)
Sub
61

Sub C2
~~16. (new)~~ A method for detecting the degree of binding between a probe and a sample comprising a biopolymer, the method comprising

(a) providing a substrate on which each of a plurality of types of probes are immobilized at a given position, wherein the probes are labeled with a first detectable label;

(b) providing a sample comprising a biopolymer, wherein the biopolymer is labeled with a second detectable label;

(c) contacting the sample with the probe and detecting the amount of the probe and the amount of the sample biopolymer bound to the probe; and

(d) producing a value representing the degree binding between a probe and a sample biopolymer by normalizing the difference between the amount of the probe and the amount of the sample biopolymer bound to the probe with the amount of the probe.

Sub C2 (cont)
17. (new) The method of claim 16, wherein the detectable label comprises a fluorescent material.

Sub F1
18. (new) The method of claim 17, wherein the emission wavelength of the fluorescent material labeling the sample biopolymer is detected separately from the emission wavelength of the fluorescent material labeling the probe.

19. (new) The method of claim 16, wherein the biopolymer comprises a nucleic acid.

20. (new) The method of claim 19, wherein the nucleic acid comprises a DNA or an RNA.

21. (new) The method of claim 19, wherein the binding comprises a hybridization.

Sub F1
22. (new) The method of claim 16, wherein the biopolymer comprises a protein.

23. (new) The method of claim 16, wherein the substrate on which each of a plurality of types of probes are immobilized at a given position comprises a biochip.

24. (new) A method for detecting the degree hybridization between an oligonucleotide probe immobilized onto an array and a sample nucleic acid, the method comprising

(a) providing a substrate on which each of a plurality of types of oligonucleotide probes are immobilized at a given position to form an array, wherein the oligonucleotide probes are labeled with a first detectable label;

(b) providing a sample comprising a nucleic acid, wherein the nucleic acids are labeled with a second detectable label;

(c) contacting the sample with the probe and detecting the amount of the probe and the amount of the sample nucleic acid hybridized to the probe; and

(d) producing a value representing the degree hybridization between a probe and a sample by normalizing the difference between the amount of the probe and the amount of the sample nucleic acid hybridized to the probe with the amount of the probe.